WHAT IS CLAIMED IS:

1. A method for preventing an infection in a mammal, said method comprising: administering a pharmaceutically effective amount of a liposomal formulation to said mammal, wherein said liposomal formulation comprises:

a) a lipid vesicle; and

b) at least one single chain lipid active agent.

2. The method of claim 1, wherein said active agent comprises an aliphatic hydrocarbon moiety.

3. The method of claim 1, wherein said active agent is selected from the group consisting of a monoglyceride, a fatty acid, a lysophospholipid, and a combination thereof.

4. The method of claim 1, wherein said infection is a viral infection.

5. The method of claim 4, wherein said virus is an enveloped virus.

6. The method of claim 5, wherein said virus is selected from the group consisting of VSV, VV, MV, HSV, and HIV.

7. The method of claim 1, wherein said infection is a bacterial infection.

8. The method of claim 7, wherein said bacterial infection is selected from the group consisting of Gonorrhea and Chlamydia.

9. The method of claim 1, wherein said infection is a parasitic protozoan infection.

10. The method of claim 7, wherein said protozoa is *Giardia lamblia*.

11. The method of claim 1, wherein said formulation is selected from the group consisting of a topical formulation, an oral formulation, a mucosal formulation, a nasal formulation, an ophthalmic formulation, a rectal formulation, vaginal formulation, parenteral formulation and dermal formulation.

12. A liposomal formulation comprising:

a) a lipid vesicle; and

b) at least one single chain lipid active agent.

13. The liposomal formulation of claim **12**, wherein said active agent is selected from the group consisting of a monoglyceride, a fatty acid, a lysophospholipid, and a combination thereof.

14. The liposomal formulation of claim **13**, wherein said active agent is a monoglyceride.

15. The liposomal formulation of claim **14**, wherein said monoglyceride is a monoalkyletherglyceride with a number of carbon atoms in the alkyl moiety portion being from about 2 to about 18.

16. The liposomal formulation of claim **15**, wherein said monoglyceride is selected from the group consisting of 1-O-alkyl-sn-glycerol, 2-O-alkyl-sn-glycerol, and a mixture thereof.

17. The liposomal formulation of claim **16**, wherein said monoglyceride is 1-O-octyl-sn-glycerol, 2-O-octyl-sn-glycerol, and a mixture thereof.

18. The liposomal formulation of claim **14**, wherein said monoglyceride is a single chain fatty acid monoglycerides with a number of carbon atoms in the fatty acid moiety portion being from about 6 and about 12.

19. The liposomal formulation of claim **12**, wherein said lipid vesicle comprises a phospholipid.

20. The liposomal formulation of claim **19**, wherein said phospholipid is phosphatidylcholine.

21. The liposomal formulation of claim **20**, wherein said lipid vesicle further comprises a diluent selected from the group consisting of a co-solvent, a buffer solution, an anti-oxidant, a preservative, a thickening agent and a mixture thereof.

22. The liposomal formulation of claim **21**, wherein said co-solvent comprises propylene glycol, ethanol, water or mixtures thereof.

23. The liposomal formulation of claim **21**, wherein said anti-oxidant comprises vitamin E acetate.

24. The liposomal formulation of claim **21**, wherein said preservative comprises methylparaben, propylparaben or mixtures thereof.

25. The liposomal formulation of claim **21**, wherein said thickening agent comprises Carbopol, Crothix or mixtures thereof.

26. The liposomal formulation of claim **12**, wherein said lipid vesicle is unilamellar.

27. The liposomal formulation of claim **12**, wherein said lipid vesicle is multilamellar.

28. The liposomal formulation of claim **12**, wherein said lipid vesicle is oligolamellar.

29. The liposomal formulation of claim **12**, wherein said lipid vesicle comprises a co-lipid.

30. The liposomal formulation of claim **29**, wherein said co-lipid is selected from the group consisting of a cholesterol, a phospholipid, a cationic lipid, an anionic lipid, and a combination thereof.

31. The liposomal formulation of claim **30**, wherein said cationic lipid is selected from the group consisting of stearyl-amine, DC-Chol, DOTAP, and a combination thereof.

32. The liposomal formulation of claim **30**, wherein said anionic lipid is selected from the group consisting of PS, PG, and a combination thereof.

33. The liposomal formulation of claim **12**, wherein said formulation is a topical formulation.

34. The liposomal formulation of claim **33**, wherein said topical formulation is selected from the group consisting of cream, a gel, a lotion, a suppository, a fluid suspension, and a paste.

35. The liposomal formulation of claim **12**, wherein said active agent is encapsulated by the lipid vesicle.

36. A pharmaceutical composition comprising:

a pharmaceutical excipient; and

a liposomal formulation comprising a lipid vesicle and at least one single chain lipid active agent.

37. The composition of claim **36**, wherein said excipient comprises an antioxidant, a co-solvent, a preservative, a flavoring agent, vitamin, a thickening agent, a buffer solution, a wetting agent, an emulsifying agent, a suspending agent, a sweetening agent, a flavoring agent, a perfuming agent or mixtures thereof.